

Work Order ID 102961

102961

Page 1

June-12-13 9:17:31 AM

Item ID: D3672-3

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Phenolic Washer

Stop *NS2*

Start Date: 6/14/13 Start Qty: 200.00

200

Cust Item ID:

Required Date: 6/14/13 Req'd Qty: 200.00

200

Customer:

Reference:

Approvals:

Process Plan: MMF

Date: 13-6-13

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3672

Rev C

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 20160

Purchase Part Number: MM.500 OD X .267 ID X.031 +/- .002

Supplier: HASKINS INDUSTRIAL

Certificate of conformity is required

CZ 13/6/14 500

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

13/6/14 (500)

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

13.6 20

500

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence
		<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Set-up
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Work Order ID 102961

102961

Page 2

June-12-13 9:17:31 AM

Item ID: D3672-3 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Phenolic Washer
 Start Date: 6/14/13 Start Qty: 200.00 *200* Cust Item ID:
 Required Date: 6/14/13 Req'd Qty: 200.00 *200* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>8002</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

500x SP
 13-6-20.

MCJ 13-06-21

RB-06-20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

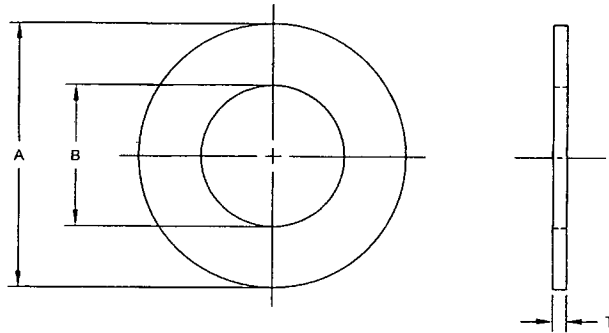
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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SPECIFICATION CONTROL DRAWING



D3672-X PHENOLIC WASHER

Dart P/N	A (IN)	B (IN)	T (IN)	SUPPLIER P/N	REPLACES
D3672-1	0.437	0.210	0.031	MM .437OD x .210ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H3L
D3672-3	0.500	0.267	0.031	MM .500OD x .267ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H4L
D3672-5	0.562	0.326	0.062	MM .562OD x .326ID x .062 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5
D3672-7	0.562	0.328	0.031	MM .562OD x .328ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5L
D3672-9	0.625	0.390	0.031	MM .625OD x .390ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H6L
D3672-11	0.750	0.453	0.031	MM .750OD x .453ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H7L
D3672-13	0.875	0.515	0.031	MM .875OD x .515ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H8L



NOTES:

- 1) MATERIAL: PHENOLIC. PURCHASE HASKINS INDUSTRIAL INC. P/N PER TABLE (IN QUANTITIES OF 1000)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

C	REDRAW, ADD -13 (ZN A8-1), PAR 09-038	CP	09.11.04
B	ADD -5/-7/-9/-11	DC	07.10.09
A	NEW ISSUE	DC	07.08.28
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP	DRAWING NO.	REV. C
CHECKED	JA	D3672	SHEET 1 OF 1
MFG. APPR.	WJ	TITLE	SCALE
DE APPR.	WJ	PHENOLIC WASHER	NTS
DATE	09.11.04	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube <input type="checkbox"/></td> <td style="width:15%;">Crosstube <input type="checkbox"/></td> <td style="width:15%;">Water Jet <input type="checkbox"/></td> <td style="width:15%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Offset/Setup									
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Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO20160

Purchase Order Date 6/13/2013

PO Print Date 6/17/2013

Page Number 1 of 5

Order From :

VC-HAS001

HASKINS INDUSTRIAL
5-52 ANTARES DRIVE
NEPEAN, ON K2E 7Z1
CA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FOAXED
6/13/2013

Contact Name

Vendor Phone 613 723 8800

Ship To Contact

Ship To Phone

Ship Via: Dicom

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	List Price	Disc %	Discounted Unit Price	Extended Price
1	806206	PIP PIN	6/19/2013 Yes 6/19/2013		10.00 Each				\$228.20
	AS PER DWG D3489 REV. A B102739								
	Line Total:								\$228.20
2	D3672-3P	WASHER	6/19/2013 Yes 6/19/2013		500.00 Each				\$161.45
	AS PER DWG D3672 REV. C B102961								
	Line Total:								\$161.45
3	71500-30	110-0500-402 1/2 4FL DEBOER END-MILL	6/17/2013 Yes 6/17/2013		3.00 Each				\$132.12

Note:

6/17/2013

HASKINS INDUSTRIAL INC.
5-52 ANTARES DRIVE

** PACKING SLIP **

Order # 1249730.0

Order Date 06/17/13

NEPEAN, ONTARIO K2E 7Z1
TEL (613)723-8800 FAX (613)723-8806

Page 1 of

Sold To: DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY
ON
K6A 1K7

Ship To: DART AEROSPACE LTD.
1270 ABERDEEN STREET
HAWKESBURY
ON
K6A 1K7

* Reprint

Cust Phone #	Warehouse	F.O.B.	Taken By
	OTTAWA	DEST	Sylvie 613-723-8

Cust #	Customer P/O #	Required	Orig Order	Slsm	Ship Via	Terms
05168	20160	06/18/13	1249730.00	PL	DICOM	NET 30

Ln#	Bin #	Order UM	Ship	B/O	Product	Description
1		3 EA	0	3	DB1X1	110-0500-402 1/2 4FL BN CARB EM
2		50 C	0	50	SP1X100	HC-27 5/16-18X1 C/S
3		50 C	0	50	SP1X100	HX-224 1/4-20X1" FLAT HEAD C/S
4		1 EA	1		KEO1X1 1152723 ✓	E05K SCLP18 CARBIDE BORING BAR
5 *		4 EA	3	1	SO1X1 ✓	604-087 #26065 CLAMP 6/PKG
6 *		1 EA	1		SO1X1 ✓	136-757 1/4 RAD X 3/4SHK CUTTER
7 *		1 EA	1		SO1X1	136-750 1/16" RAD CUTTER
8 *		2 EA	0	2	HAR1X1	21050-C3 .050R 4FL ALTIN CUTTER
FREIGHT TO BE ADDED FROM HARVEY TOOLS						
9 *		1 EA	1		SO1X1 ✓	122-105 1/2 45DEG DOVETAIL CUTTER
10		20 EA	20		KEO1X1 1158624 ✓	CNMG432K KC935 INSERT
11	030220	10 EA	10		JG-806206 ✓	3/16 DBL ACTION RING HANDLE 8062
12	CAB810	500 EA	500		MMS-D3672-3 ✓	.500 X .267 X .031 +/- .002 WASHER, PHE

PLEASE NOTE:

1. NO RETURNS WITHOUT PRIOR AUTHORIZATION
2. ALL SHORTAGE CLAIMS MUST BE WITHIN 10 DAYS
3. BO CODE: BO = QTY NOT SHIPPED IS BACK-ORDERED
CL= QTY NOT SHIPPED WAS CANCELLED
SC= ITEM CONSIDERED COMPLETE - NO B/O CREATED

FILL 10 PACK 10 DATE 6/18/13
Printed on 2013-06-18 at 9:15